

REMARKS

Applicants have received and reviewed the Office Action dated July 9, 2009. The time for Response extends up to and includes October 9, 2009. Claims 1-5 are pending. Applicants have amended claims 1-5 and submit the amendments do not add new matter.

Abstract

At paragraphs 1-4 of the Office Action, the length and form of the Abstract was objected to. The Abstract has been amended in view of the Examiner's comments. Withdrawal of the objection is respectfully requested.

Specification

At paragraph 5, the specification was objected to due to a grammatical error. "EVO/EVAH" has been corrected in the specification to EVOH/EVA. Withdrawal of the objection is requested.

At paragraphs 6-7 of the Action, the Examiner objected to the amendment Applicants filed on July 25, 2008 as containing new matter. Applicants respectfully do not agree, submit that the error is obvious for at least the following reasons, and submit that correction of the obvious error does not introduce new matter.

The units as originally filed, $\text{g/cm}^2 \cdot 24\text{h}$, contained an unintentional typographical error and should have recited $\text{g/m}^2 \cdot 24\text{h}$. The correct units to express the permeability to gases for the film of the present invention are $\text{g/m}^2 \cdot 24\text{h}$. This error is obvious to a skilled artisan because $1 \text{ g/cm}^2 \cdot 24\text{h}$ is equivalent to $10,000 \text{ g/m}^2 \cdot 24\text{h}$. One object of the present invention is related to film laminate that impedes the permeation of gases and water vapor in order to maintain the properties of a food product. Therefore, the permeation to water vapor should be as low as possible.

The originally filed units are 10,000 times the expected value for film with the properties needed in the disclosed invention. A skilled artisan would recognize this as a typographical error because the originally filed units are exponentially beyond the necessary properties of a film laminate directed to preservation of food products. In addition, the International Standards

Organization describes the unit for “permeability to water vapor” as $\text{g/m}^2 \cdot 24\text{h}$ (see ISO 15106-1 to 4). Accordingly, Applicants assert the original units were filed as a result of an unintentional typographical error and that the error would have been obvious to one of skill in the art. Withdrawal of the objection is requested.

35 U.S.C. § 112

At paragraphs 8-13 of the Action, the Examiner rejected claims 1-5 under 35 U.S.C. 112 (second paragraph). Applicants respectfully traverse the rejection.

Solely to further prosecution and without acquiescing to the rejections, Applicants have amended claims 1-5 to further clarify the presently claimed invention. In particular, Applicants have removed the term “fish” from the claims. Applicants assert the term “meat” is comprehensive and inclusive of “fish.” For example, the Oxford Dictionary defines “meat” as the flesh of an animal as food. The Merriam Webster Dictionary defines “meat” as an animal tissue considered especially as food. Applicants assert that the removal of the term “fish” from the claims has not altered the scope of the claims. The remaining term “meat” comprises “fish.”

Applicants submit the claims as amended now fully comply with § 112, second paragraph. Withdrawal of the rejection is respectfully requested.

At paragraph 14 of the Action, the Examiner rejected claim 3 under 35 U.S.C. 112 (first paragraph). Applicants respectfully traverse this rejection.

As discussed above, the original units were filed as a result of an unintentional typographical error that occurred in the table within claim 3 and the specification. Page 7, lines 8-16 of the specification describes a film laminate intended to protect food products from the permeation of gases and water vapor. The units included by the typographical error would be useless for this purpose. A skilled artisan would understand that the original filed units are about 10,000 times the expected value for film with the properties needed in the disclosed invention. Therefore, one of skill in the art would have reasonably concluded that the Applicants had possession of the claimed invention. Withdrawal of the rejection is requested.

Applicants note that the above amendments described in this and in the preceding sections were not made to overcome an art based rejection. Accordingly, such amendments should not be construed in a limiting manner.

§ 103(a) Rejections

At paragraphs 16-28 of the Action, the Examiner rejected claims 1-4 under 35 U.S.C. 103(a) as obvious over Mitsuda et al. (U.S. 4,396,636) in view of Mayr et al. ("Rapid Detection of Meat Spoilage by Measuring Volatile Organic Compounds by Using Proton Transfer Reaction Mass Spectrometry," August 2003, Applied and Environmental Microbiology. Vol. 69, No. 8, 4697-4705.) Applicants respectfully traverse the rejection.

Amended claim 1 recites, in part, the general sequential steps of cutting meat, quick freezing meat, packing meat, vacuum sealing the packed meat and freezing meat. These sequential steps avoid the exudation of meat that is common to the cited references. For example, "subjecting the meat to an initial quick freezing process" prior to "packaging the product in special packages" allows the retention of fluids within the meat (*see* claim 1). This retention of fluid is part of what allows the defrosted product to retain the "fresh product" juiciness and taste.

By contrast, the cited references fails to teach or suggest the presently claimed sequential steps of cutting meat, quick freezing meat, packaging meat, vacuum sealing the packed meat and freezing meat. An attempt to vacuum package meat prior to freezing, like Mayr, results in exudation of the meat and subsequent decrease in "fresh product" qualities.

Mitsuda et al. discloses a method of producing frozen food that starts with forming an ice capsule (Mitsuda, 2:31-54). The ice capsule formation results from freezing the food in a *freezing medium*. As explained in Example 1 of Mitsuda et al., the freezing medium is "*glazing solution* containing a vegetable polysaccharide or a gelatine" that the product is wholly submerged in prior to freezing (Mitsuda, 5:23-26). Subsequently, nitrogen gas is blown into the solution of product submerged in freezing medium to form a "rigid ice-capsule surrounding the surface of each piece of meat" (Mitsuda, 5:26-29). Following freezing, the meat of Mitsuda et al. is transferred directly to a common freezing box without vacuum sealing (Mitsuda, 5:41-44).

The presently claimed invention uses an “initial quick freezing process of the type IQF” and packages the “product in special packages, which possess high impermeability to gases, basically oxygen, nitrogen and carbon anhydride, as well as to water vapor” (see claim 1). The presently claimed invention does not utilize a freezing medium.

Mayr et al. discloses the packaging of unfrozen meat in vacuum packaging and then storing at 4°C (Mayr, Page 3). The logical combination of Mayr et al. and Mitsuda et al. results in a packaged ice capsule, wherein the ice capsule comprises the meat submerged in a freezing medium. The presently claimed invention does not make use of a freezing medium. Amended claim 1 recites the novel sequential steps of cutting meat, quick freezing meat, packing meat, vacuum sealing the packed meat and freezing meat again. The quick freezing step of amended claim 1 does not use a freezing medium to form an ice capsule. The sequential steps recited in the claims avoid the exudation of meat that is common to the cited references.

At paragraph 27 of the Action, the Examiner assumes because the transmission rates of O₂ and CO₂ taught by Mayr et al. are within a reasonable range of the permeability ranges disclosed by the Applicant, the permeability to water vapor in Mayr et al. must be analogous to the presently claimed invention. Applicants respectfully disagree.

Applicants note that gas permeability is proportional — however, the permeability of water vapor is not proportional to the permeability of gases because water vapor has a higher density than that of gases. Therefore, the Examiner’s assumption regarding Mayr is incorrect because the permeability of water vapor cannot be assumed from the permeability of O₂ and CO₂ and no clear relationship can be made based on the permeability of CO₂ and O₂ to the values of permeability of water. The presently claimed invention uses packaging that has a balance between water vapor permeability and gas permeability. Amended claim 3 of the present application recites specific properties of the packaging used in the presently claimed invention which are not disclosed or suggested by Mayr.

Applicants submit the cited combination of references fails to disclose or suggest (alone or in combination) a method utilizing the sequential steps as presently recited in Applicants’ claim 1. In addition, the presently claimed invention makes use of packaging with water vapor permeability parameters that can not be assumed from the cited references as alleged in the

Office Action. Claims 2-4 depend from claim 1 and so are allowable for at least the reasons discussed above. Withdrawal of the rejection is requested.

At paragraph 29 of the Action, the Examiner rejected claim 5 under 35 U.S.C. 103(a) as obvious over Mitsuda et al. in view of Mayr et al. in further view of Weerawardena et al. (GB 2360690) Applicants respectfully traverse the rejection.

The primary Mitsuda reference fails to disclose or suggest the invention recited in Applicants' claim 1 as amended for the reasons discussed above. The secondary Mayr et al. reference does not cure the deficiencies of the Mitsuda reference (as also discussed above). Weerawardena does not overcome the deficiencies of Mitsuda and/or Mayr et al. Accordingly, the references (alone or in combination) do not disclose or suggest the steps of claim 1. Claim 5 depends from claim 1 and so includes the limitations thereof. Therefore, withdrawal of the rejection is respectfully requested.

Applicants reserve the right to make additional arguments as may be necessary.

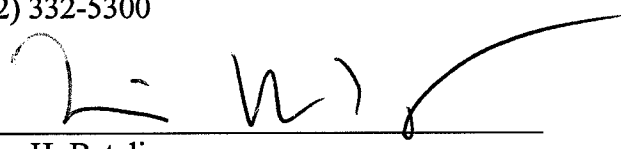
Summary

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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Date: 9 October 2009



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